CLAIMS

1. A process for bleaching a cellulosic fibre material with a peroxide compound in an aqueous alkaline medium, comprising a bleaching step wherein

a) a first polymer (A) comprising a homopolymer of acrylic acid, methacrylic acid or maleic acid, or a copolymer of acrylic acid and/or methacrylic acid with an unsaturated dicarboxylic acid, and

a solution of a second polymer (B) comprising a poly-alfa-hydroxyacrylic acid or a salt thereof,

are added to a cellulosic fibre material, and

b) thereafter adding a peroxide compound and an alkaline substance and carrying out the bleaching.

2. The process of claim 1 wherein the bleaching is carried out in the absence of a nitrogen-containing chelating agent.

3. The process of claim 1 or 2 wherein the bleaching is carried out in the absence of added calcium and/or magnesium ions.

4. The process of any of claims 1 to 3 wherein the polymers (A) and (B) are added in the form of a solution containing both polymers.

5. The process of claim 4 wherein the polymer solution has a pH of at most 7, preferably at most 6, and more preferably at most 5.

6. The process of any of claims 1 to 5 wherein the first polymer (A) comprises a raw polymer obtained from the homopolymerization of acrylic acid, methacrylic acid or maleic acid or from the copolymerization of acrylic acid and/or methacrylic acid with an unsaturated dicarboxylic acid, said raw polymer having a pH of below 7, preferably below 6, and more preferably below 5.

7. The process of any of claims 1 to 6 wherein the first polymer (A) has a molecular weight of at least 4000, preferably at least 10000, and more preferably at least 30000.

8. The process of any of claims 1 to 7 wherein the second polymer (B) has a molecular weight of at least 5000, preferably at least 10000, and more preferably at least 15000.

9. The process of any of claims 1 to 8 wherein the first polymer (A) comprises a copolymer of acrylic acid and/or methacrylic acid with maleic acid, wherein the molar ratio of acrylic acid and/or methacrylic acid to maleic acid is from 80:20 to 20:80, preferably from 70:30 to 50:50.

10. The process of any of claims 1 to 9 wherein the share of the second polymer (B) is from 1 to 50% by weight of the total amount of the first and second polymers (A) and (B).

11. The process of any of claims 1 to 10 wherein the polymers (A) and (B) as active material are added in a total amount of 0.05 to 10 kg per ton of dry cellulosic fibre material, preferably in an amount of 0.1 to 5 kg per ton of dry cellulosic fibre material.

12. The process of any of claims 1 to 11 wherein the cellulosic fibre material comprises a chemical, mechanical, chemi-mechanical or deinked pulp.